Impact Assessment

Of

the Teachers' Training Programme administered

by

Loreto Day School Teachers' Training Institute, Sealdah

- A REPORT

State Council of Educational Research & Training
(West Bengal)
25 / 3, Ballygunge Circular Road, Kolkata – 700019

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Impact Assessment of the Teachers' Training Programme administered by Loreto Day School Teachers' Training Institute, Sealdah - A REPORT

- A report of the project carried out by SCERT(WB) with assistance from DIET , SOUTH 24 PARGANAS & DPO,SSM , SOUTH 24 PARGANAS in sampled Primary schools of South 24 Parganas with financial assistance from Paschim Banga Sarva Shiksha Mission in the financial year 2010-11.

RESEARCH TEAMS

STATE LEVEL

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- Sri Hirakkumar Barik , Research Fellow (Grade-II),SCERT(WB)
- Sri Saswata Samanta, Research Fellow (Grade-II),SCERT(WB)
- Sri Gautam Bhattacharya, Research Fellow (Grade-II),SCERT(WB)
- Sri Subrata Kumar Biswas, Research Fellow (Grade-II),SCERT(WB)
- Sri Nilanjan Bala , Research Fellow (Grade-II),SCERT(WB)
- Smt Sridebi Dasgupta, Research Fellow (Grade-II),SCERT(WB)
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DISTRICT LEVEL

1. Senior Lecturers of DIET, South 24 Parganas
2. Pedagogy Coordinator, DPO, SSM, South 24 Parganas
3. Assistant Technician , DIET, South 24 Parganas
4. Members of DQMT, DPO, SSM, South 24 Parganas

DATA ENTRY

Assistant Technicians, DIET Howrah

DATE: - 14th February, 2011

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CHAPTER - 1

INTRODUCTION

A) BACKGROUND

Primary education being the pillar on which the entire system of education stands, it requires special care and nurturing. The teachers of primary schools play an important role in the society as they introduce small children to the world of knowledge. Therefore, it is necessary that primary school teachers hone their teaching skills regularly and keep in touch constantly with the latest techniques of classroom teaching.

Loreto Day School Teachers' Training Institute (LDSTTI), Sealdah, has been providing 'Barefoot Teachers' Training' to teachers teaching in the centres run under the 'Shikshalaya Prakalpa'. The School Education Department, Government of West Bengal, desired that SCERT (WB) would evaluate the efficacy of a similar teachers' training provided by LDSTTI to teachers of primary schools on a pilot basis.

Accordingly, a proposal titled **'On-site support to the teachers of selected primary schools in Bishnupur-II & Maheshtala-Thakurpukur blocks of district South 24 Parganas for improvement of the quality of teaching –learning'** was drawn up by SCERT (WB) and submitted to the Paschim Banga Sarva Shiksha Mission (PBSSM) for its approval. The study was eventually carried out in 2010-11 with the funds provided by PBSSM.

B) METHODOLOGY

Several meetings were held with the Director, SCERT(WB) and representatives of LDSTTI at SCERT (WB). SCERT faculty also visited LDSTTI. A meeting was held at SCERT (WB) in which the Secretary, West Bengal Board of Primary Education, Chairman, District Primary School Council and the District Project Officer, SSM, South 24 Parganas were present. SCERT (WB) faculty met with experts of West Bengal Board of Primary Education at the premises of the Board who agreed in principle with the proposal.

It was resolved that initially a baseline survey of the selected schools would be conducted by SCERT (WB). Pre-intervention achievement tests (oral and written) would be administered on the students of classes I and II of experimental and control schools. This would be followed by teachers' training by LDSTTI to the teachers of the selected primary schools. After completion of the training, SCERT would again administer post-intervention test on the same set of students.

SCERT (WB) designed the following tools for carrying out the baseline study-

- Collection of information from schools regarding infrastructure, availability of facilities, number of students and teachers, PTR, etc.,
- Collection of information regarding teachers,
- Recording observations regarding classroom environment, teaching – learning process, etc.,
- Assessing attainment of various competencies by the students of classes I and II in Bengali, English and Mathematics (oral and written).

In all, 32 primary schools were selected in Thakurpukur-Maheshtala and Bishnupur blocks of South 24 Parganas for implementation of the project. The schools were divided into four clusters. Four more schools were selected as control schools. There were two experimental schools and one control school in each cluster. The pre-intervention achievement test was administered in only the experimental and control schools. The other tools (School Questionnaire, Classroom Observation and Teachers' Questionnaire) were administered in all the schools.

Following is the list of 32 schools along with relevant information:-

Sl. No.	Cluster / Block	Name of the School	Total No. of Teachers	No. of children in Class I	No. of children in Class II
1.	Cluster 'A' Thakurpukur - Maheshtala	Joka – I FPS	5	25	39
2.		Bratacharigram JBS	5	71	61
3.		R. K. Poalia FPS	2	11	08
4.		Raspunja (new set up) FPS	3	32	33
5.		Raspunja JBS Unit– II	3	56	58
6.		Raspunja JBS Unit – I	4	51	66
7.		Nawbad FPS	3	15	07
8.		Banagram FPS	4	48	29
		Subtotal	**29**	**309**	**301**
9.	Cluster 'B' Bishnupur Block - II	Chileberia FPS	3	79	41
10.		Halderpukur FPS	3	20	24
11.		Parasar FPS	4	84	57
12.		Nahazari FPS	6	12	17
13.		Nahazari Muslimpara FPS	3	46	46
14.		Amraberia FPS	3	46	28
15.		Samali FPS	3	50	44

16.		Samali Mollah Ghosh Para	2	34	39
		Subtotal	**27**	**371**	**296**
17.	**Cluster 'C'** **Bishnupur Block - II**	Choto – Gagan Gohalia FPS	3	11	19
18.		Kanganberia (Spl) FPS	2	15	14
19.		Kanganberia Chandpur FPS	4	31	30
20.		Kanganberia – Nimna Buniyadi FPS	4	28	27
21.		Chandpur FPS	4	40	58
22.		Angarberia (West)	3	25	28
23.		Gazipur FPS	4	42	48
24.		Angarberia (East)	4	35	37
		Subtotal	**28**	**227**	**261**
25.	**Cluster 'D'** **Bishnupur Block - II**	Vidyanagar - I FPS	4	39	42
26.		Vidyanagar - II FPS	5	47	52
27.		Kirtan Khola FPS	4	43	38
28.		Hatberia FPS	3	25	14
29.		Sanjua FPS	5	23	22
30.		Bibirhat FPS	4	43	37
31.		Makhalia FPS	1	08	11
32.		Nandabhanga FPS	4	34	39
		Subtotal	**30**	**262**	**255**
		TOTAL	**114***	**1169**	**1113**

(Note – The number of teachers does not include that of Voluntary Resource Persons)

The list of experimental and control school in each cluster is given below:

SL NO.	CLUSTER	NAME OF SCHOOL	TYPE OF SCHOOLS
1	A	Bratachari JBS	*EXPERIMENTAL*
2		Raspunja JBS Unit-II	
3		Kalua FPS	CONTROL
4	B	Chileberia FPS	*EXPERIMENTAL*
5		Parasar FPS	
6		Ramnagar Special	CONTROL

7	C	Chandpur FPS	EXPERIMENTAL
8		Ghazipur FPS	
9		Nandabhanga Paschim	CONTROL
10	D	Vidyanagar JBS Unit-I	EXPERIMENTAL
11		Vidyanagar JBS Unit-II	
12		Moukhali JBS	CONTROL

A meeting was convened by LDSTTI at Bratacharigram JBS on 10.06.2010 in which the headteachers of all the selected primary schools and the concerned SI attended. The dates of school visits were finalized and the methodology of the project was clearly explained to the headteachers.

SCERT (WB) faculty, divided into four groups, conducted the baseline survey in all the clusters in June – July 2010. They were assisted in this task by the faculty of DIET, South 24 Parganas and personnel from LDSTTI. Logistic support was provided by the support staff of SCERT (WB).

LDSTTI provided on-site training to the teachers of the selected 32 primary schools in three phases, and orientation and exposure visit to LDSTTI, Sealdah in two phases from July-November 2010.

In the meantime, the data collected during baseline survey were organized and analysed at SCERT. A report of the analysis was also prepared.

SCERT (WB) took up the post-intervention study in January 2011. In this phase the test was conducted only in the twelve (12) experimental and control schools. The answer scripts were evaluated, the scores were entered in a common format, and the data were organized and analysed at SCERT (WB). The final report thus prepared was submitted to the concerned authorities in February 2011.

The following personnel from DIET, South 24 Parganas and DPO, SSM, South 24 Parganas conducted the survey at the district level –

1. Dr.Shukla Datta, Sr. Lecturer, DIET, South 24 Parganas
2. Smt. Nandita Datta, Sr. Lecturer, DIET, South 24 Parganas
3. Shri Sunanda Roy, Sr. Lecturer, DIET South 24 Parganas
4. Shri Swapan Kr. Das, Sr. Lecturer, DIET South 24 Parganas
5. Smt. Sukla Sarkar, Sr. Lecturer, DIET, South 24 Parganas
6. Smt. Soma Mukherjee, DQMT, DPO, SSM, South 24 Parganas
7. Smt. Swapna Bhattacharya, DQM Team Member, SSM, South 24 Parganas
8. Smt. Anima Bag, DQM Team Member, SSM, South 24 Parganas
9. Shri Tarun Haldar, DQM Team Member, SSM, South 24 Parganas

Besides the persons named above, SCERT received immense support from the following two technicians for entry and organization of data:-

1. Smt. Rituparna Mukherjee, Assistant Technician (Comp), DIET, Howrah,
2. Smt. Soma Goswami, Assistant Technician (ET), DIET, Howrah

We are also immensely thankful to the SPD, PBSSM; Secretary, WBBPE, Chairman of DPSC, South 24 Parganas; DPO, SSM, South 24 Parganas and the Principal of DIET, South 24 Parganas for their support in the study.

LIMITATIONS OF THE STUDY

1. The study was completed within a short period of time on a limited sample.
2. There remains further scope for analysis of the data presented in this report.
3. All the issues may not have been covered in this short span which requires the study to be conducted on a larger scale.

CHAPTER - 2

LITERATURE REVIEW

Substantial numbers of literatures are available on the impact of teacher training on student achievement. Few of them are cited below:

1. Brian A. Jacob & Lars Lefgren, 2004. "The Impact of Teacher Training on Student Achievement: Quasi-Experimental Evidence from School Reform Efforts in Chicago," Journal of Human Resources, University of Wisconsin Press, vol. 39(1).

The quasi-experimental study was carried out in Chicago in order to evaluate the effect of teacher training on Mathematics and reading performance of elementary students. The study has revealed that in-service training of teachers have no statistically or academically significant effect on either reading skill or achievement in Mathematics.

2. Donald P. Warwick, Maria Teresa Tatto, and N. G. Kularatna, "The impact of teacher education in Sri Lanka and Pakistan: A preliminary comparison" - a research study by Project BRIDGES in Sri Lanka and Pakistan.

The comparative study by Project Bridges shows marked differences in the impact of professional education on primary school teachers. In Sri Lanka, professional education of any kind has a positive influence on teaching practices and student achievement in mathematics. In Pakistan, professional education leads to few improvements in teaching practices and has only a modest influence on student achievement in mathematics and science.

3. Douglas N. Harris, Tim R. Sass, 2008, "Teacher training, Teacher quality and student achievement", working paper-3, National Centre for Analysis of Longitudinal data for Educational Analysis.

The report highlights the fact that content-focused professional development of teachers is positively associated with productivity in middle and high school mathematics. Additionally the report also says that more experienced teachers appear more effective in teaching elementary mathematics, reading and middle school mathematics. There is no evidence that either pre-service training or the scholastic aptitude of teachers influences their ability to increase student achievement.

4. NCERT, 2008, "Mid Term Achievement Survey under SSA"

The survey carried out on class III students has shown incremental increase in learning achievement in Mathematics and Language compared to baseline study conducted in 2003. However, teacher's educational qualification did not show any impact in the learning achievement of children in both the subjects. Children scored significantly better in language when they were taught by professionally qualified teachers.

5. Pascal Bressoux, Francis Kramarz, Corinne Prost, 2009. "Teachers' Training, Class Size and Students' Outcomes: Learning from Administrative Forecasting Mistakes," Institute for the Study of Labor (IZA) in Bonn, Germany, Economic Journal.

This paper studies the impact of different categories of teacher and class characteristics on third graders' outcomes. Three categories of teachers were chosen for the study viz., experienced teachers, trained novice teachers and untrained novice teachers. The findings of the study includes a) teachers' training substantially improves students' test scores in mathematics b) training effect does not rely on different teaching practices, but mainly on subject matter competence; untrained teachers who majored in sciences at university improve their students' achievement as much as trained teachers do c) the class size effect is substantial and significant; class size does not seem to be correlated with instructional practices d) teachers' training does not improve the scores of initially low-achieving students e) a smaller class is more beneficial to low-achieving students within classes and to all students in low-achieving classes.

6. "Teaching Teachers: Professional Development To Improve Student Achievement", 2005, Journal of American Educational Research Association, Volume 3 Issue 1

The paper draws the attention to the fact that professional development for teachers has become imperative due to changing goals for learning coupled with change in curriculum and a deeper understanding of teacher learning

and student thinking. It also points to the fact that professional development for the teachers should be content-focussed so as to increase their knowledge and to enhance their understanding of student thinking. The training should relate to real work experiences, using actual curriculum materials and assessments. This will inevitably boost the performance of both the teachers and the students.

7. Muhammad Shahid Farooq, Neelam Shahzadi, 2006 "Effect of Teachers' Professional Education on Students' Achievement in Mathematics - Bulletin of Education & Research, Volume. 28, No. 1, pp.47-55

The purpose of the study was to compare the effectiveness of teaching by professionally trained and untrained teachers along with the effect of students' gender on secondary school students' achievement in Mathematics. The results of the study supported the fact that the students taught by trained teachers showed better results in Mathematics and gender has no significant effect on achievement in mathematics.

Irrefutably there exists an intrinsic link between teacher education and performance of the students in the schools. Professional development of teachers with respect to subject knowledge, pedagogical skills, ability to adopt different teaching methodologies for different types of students is of crucial importance in order to ensure quality education for the students. In this perspective, an attempt has been made in this report to assess the efficacy of training provided to the primary teachers.

CHAPTER - 3

STATUS OF SCHOOLS VISITED DURING PRE-INTERVENTION SURVEY

As the aim of the present study was to conduct an external review to the efficacy of the intervention designed by Loreto Day School Teacher Training Institute (LDSTTI), a survey was done to assess the pre-intervention status of sample schools. Four survey teams made their school visits from 16.6.2010 to 6.7.2010 (on 16, 18, 21, 22 June & 2 and 6 July 2010). These four groups visited thirty six sample schools from Thakurpukur-Maheshtala block & Bishnupur-II block of district South 24-Parganas. All the schools are situated in RURAL areas. The list of sample schools is shown in table below:-

No.	Schools Visited	Remarks
1	KALUA FP School	CONTROL SCHOOL
2	JOKA-I FP School	
3	BRATACHARI FP School	EXPERIMENTAL SCHOOL
4	R.K.POHALIA FP School	
5	RASPUNJA FP School	
6	RASPUNJA UNIT I FP School	
7	RASPUNJA UNIT II FP School	EXPERIMENTAL SCHOOL
8	NAWBAD FP School	
9	BANOGRAM FP School	
10	RAMNAGAR (SPECIAL) FP School	CONTROL SCHOOL
11	CHILEBERIA FP School	EXPERIMENTAL SCHOOL
12	PARASAR FP School	EXPERIMENTAL SCHOOL
13	NAHAZARIMUSLIMPARA FP School	
14	AMRABERIA MADHYA NAHAZARI FP School	
15	NAHAZARI FP School	
16	HALDARPUKUR FP School	
17	SAMALI MOLLA GHOSHPARA FP School	
18	SAMALI FP School	
19	NANDABHANGA PASCHIM FP School	CONTROL SCHOOL
20	CHOTO GAGAN GOHALIA FP School	
21	KANGANBERIA (SPL.) FP School	
22	KANGANBERIA CHANDPUR FP School	
23	KANGANBERIA NIMNA BUNIYADI FP School	
24	CHANDPUR FP School	EXPERIMENTAL SCHOOL
25	ANGARBERIA (WEST) FP School	
26	GAZIPUR FP School	EXPERIMENTAL SCHOOL
27	ANGARBERIA (EAST) FP School	
28	MOUKHALI JBS	CONTROL SCHOOL
29	VIDYANAGAR I FP School	EXPERIMENTAL SCHOOL
30	VIDYANAGAR II FP School	EXPERIMENTAL SCHOOL
31	KIRTAN KHOLA FP School	
32	HATBERIA FP School	
33	SANJUA FP School	
34	BIBIRHAT FP School	
35	MAKHALIA FP School	
36	NANDABHANGA FP School	

The observations made during the visits are summarised below under three major heads, viz. *General Information on Sample Schools, Teaching and Learning in School* and *Feedback from the Teachers in The Surveyed Schools.*

3.1 General Information on Sample Schools

- Timing of all the primary schools was from 11.00A.M. to 4.00P.M.
- All the sample schools have their own buildings with usable toilets and provision for drinking water. Most of the sample schools have separate toilet for girls.
- Few schools have their own playground and play equipment.
- Many of the schools have various TLMs stored with them, while only a few actually keep those displayed in the classrooms, with only one school, yet fewer were found to be actually found to be putting any TLM in use during classroom transaction.
- All schools in the sample provide cooked Mid-Day-Meal (MDM) for six days in a week to all the students from Class I-IV.
- Many sample schools reported that they did not have adequate furniture, although quite a few schools reported that they have adequate number of classrooms.
- Number of schools, that have reported that they have requisite number of Teachers for required Pupil-Teacher-Ratio (PTR), was found to be lesser than the schools which suffer from dearth of teachers.
- Few of the sample schools have supply of electricity.
- Quite a few sample schools do not have clean, paved, asphalted approach road to the school.
- Only a few schools have boundary walls

3.2 Feedback from the Teachers in the Surveyed Schools

- The percentage of graduate teachers is highest, followed by teachers who have passed Madhyamik or HS.
- Less than half of the surveyed teachers have JBT/PTT training while many of the teachers have not received any kind of training.
- About half of the surveyed teachers have 6 to 15 years of teaching experience.
- Most of the surveyed teachers are regular teachers.
- Most of the surveyed teachers have received the training in English imparted by WBBPE, while quite a number of teachers did not receive any kind of training in Mathematics.
- Table -2 given below reflects the general opinion of the surveyed teachers on the English training:-

Opinion of Teachers on the Training on English Imparted by WBBPE

SL. NO.	OPINION
1	*The training for Classes I-III has been given at the same time*
2	*The teachers are weak in English, so they are finding it difficult to implement the training in classroom teaching*
3	*The major hurdle for implementation is socio-economic backwardness of the students*
4	*It is not being possible to use only English in classroom teaching. The use of Bengali or the mother tongue is becoming essential to make them understand.*
5	*Due to non-availability of adequate teachers in some schools, the training inputs are not being properly implemented.*

- More than half of the surveyed teachers give homework to students.
- Most of the surveyed teachers meet the parents of the learners regularly.
- Although most of the surveyed teachers do not prepare the health cards for students but they get involved in organizing annual sports and excursion / trips
- Apart from a few classrooms, in all the rest of the surveyed classroom the sitting arrangement is monograde. While all the classrooms are organized in rows most of the classes observed has adequate space for group activity
- Almost all the learners have text books but almost none of them have any supplementary text material. About half of the teachers have textbooks with them while only a few of them possess any supplementary text material.

3.3 Teaching and Learning in the Schools

3.3.1 Classroom Process

- Most of the teachers do not have a pre-plan for teaching.
- Quite a few teachers either follow the interactive method or a direct method of teaching while only a very few teachers follow mixed method of teaching.
- While some of teachers facilitate classroom activity, most other teachers follow a traditional approach.
- In most of the classes teacher-dominated method of teaching was followed.
- Most of the teachers asked book-based questions, while a few of them asked questions developed by them, in some classes no questions were asked.
- Most of the learners never ask questions.
- Only a few of the teachers encourage learners to ask questions.
- While most of the teachers have proficiency in the skill of explanation, only a few of the teachers exhibit the skill of giving appropriate examples.
- In more than half of the classes both teacher and the learner used the blackboard while in some of the classes, the blackboard was used only by the teacher. In a few classrooms, the blackboard remained unused by anyone.
- In quite a few of the classrooms assessment was both oral and written, while in rest of the classes only oral assessment took place.
- Most of the teachers do not incorporate humour during teaching.
- Almost all the teachers give clear instructions in the classroom.
- In the classrooms of most of the teachers, periods of silence or confusion were observed.
- Some of the teachers modify the classroom transaction according to the mood of the classroom while most of teachers rephrase incorrect responses of the learners

3.3.2 Learners' Achievements

- Most of the students can not understand simple conversation in English.
- Most of the students can not identify pictures by naming them in simple English.
- Most of the students do not have the ability to follow simple instructions in English.
- Moderately high percentage of students can not write names in Bengali seeing pictures of objects.
- A moderate percentage of failures has been found among students in their attempt to count objects.
- Most of the students can identify Bengali alphabets.
- Most of the students can recite a Bengali poem.
- Most of the students can count from 1-9 in Bengali
- Almost all students can tell differences in sizes.
- Many of the students can count objects.
- Moderately high percentage of students can copy words in Bengali.
- The ability of the learners to express numbers in words and also in terms of Units and Tens was generally found to be very low in all the three sample schools.
- The ability to identify colours in English was again one aspect where the general competency among learners in all the sample schools was far below the mark.

The intervention by LDSTTI administered on the sample schools, except the four Control schools, has been described in the following chapter.

CHAPTER - 4

REPORT OF THE LORETO DAY SCHOOL TEACHERS' TRAINING INSTITUTE, SEALDAH

A request was made by SCERT to the LDSTTI for providing the details of the training programme conducted and a reply was received on 8-1-2011 containing the planning , methodology and observations of the LDSTTI on the subject. It was reported that LDSTTI has provided on-site support to the teachers of selected thirty –two primary schools of Bishnupur Block II and Thakurpukur – Mahestala under Circle III of district 24 Parganas (South) and the training was imparted on the basis of materials designed by them.

The following paragraphs summarise the report of LDSTTI:

It has been noted that the LDSTTI has taken into consideration the following **objectives** for this purpose:-

1. To enhance and improve the learning in Class I & II (specially reading skill is the key of all learning).
2. To improve the student understanding of a text.
3. To reduce the boredom in the classroom.
4. To introduce experimental learning.
5. To reduce rote learning (repetition without understanding).
6. To create an environment of peer group learning.
7. To bring out self-learning.
8. To develop self-evaluation.
9. To improve socialization among the students.
10. To inspire creativity and creative thinking instead of memorizing and repetition.
11. To create a joyful learning environment.
12. To create an atmosphere of questioning (asking questions, not only what, where, who, but also why).
13. To create an environment of self-discipline.
14. To improve the power of observation and attention of the students.
15. To increase physical activities instead of sitting and listening.
16. To increase self confidence and motivation to learn.
17. To increase school participation and attendance, to minimize school dropouts.

METHODOLOGY

According to the report of LDSTTI, the training was conducted in the classrooms of the four Primary Schools designated as Assembly Schools involving groups of teachers. The training was conducted in two parts:

Part I (3 hrs)

A demonstration of effective teaching was conducted with children of Class I and Class II (separately class-wise) which was observed by groups of teachers. Demonstration was in teaching of Bengali (mother tongue), Mathematics and English.

Part II (2 hrs)

A discussion took place between the trainers and the teachers concerning the demonstrations and the methodology employed. The final activity was the preparation of lesson plans by the teachers to be used by them in the coming week.

INSTRUCTIONS FOR TEACHERS

It has been claimed that the methodology imparted during the discussion with the teachers covered the following:

1. Teacher will address the class in big group. She / he will give necessary instructions in big group.
2. Children will be divided into small groups (i.e. groups of 4 or 5).
3. Children will sit in small groups in open ended way.
4. After giving instruction and task teacher will move from one group to another. She / he will extend her / his support to the students.
5. Teacher will not give the answer, rather she / he will try to generate questions among the students and will give some clue to find the solution by their own.
6. Teacher will talk less. She / he will allow the students to talk and discuss on valid topics.
7. The student group will be arranged according to their ability, also sometime she / he will arrange some mixed group activities.
8. Teacher will use ample teaching learning materials (TLM) at the time of teaching.
9. The TLM is interactive and self explanatory, though the teacher will demonstrate first and will help the students at the time of work.
10. Teacher will give maximum learning opportunities to the students by using various techniques and TLM in the classroom.
11. Teacher should use all the existing materials (such as pocket board – both big and small, letter cards, charts, workbooks, other TLMs) available in the school.
12. Teacher should use lots of action rhymes, songs, stories, activities, games with the children.
13. Teacher should give lots of drawing, tracing, colouring activities to the children.

14. Teacher should not continue a topic for a long time. She / he should change the task after a certain time duration (i.e. 20 – 25 mins.).
15. Teacher will encourage the students to learn sharing, cooperation by making them work in groups and by sharing books, work cards, pencils, colours, etc.
16. Teacher should evaluate students after each part of lesson taught everyday. Constant evaluation will take place in classroom. Evaluation can be done group-wise and individually both.
17. Checking, correction, reinforcement : this task is on a regular basis everyday at the beginning of the class and at the end of the class.
18. Teacher will maintain lesson plans regularly and review, revise, rewrite the plan at the end of the day.
19. Teacher will give importance to construction of knowledge and concept building through experience and concrete objects.
20. Teacher should prepare new TLMs and try to collect and use new ideas of teaching with the students.

ON-SITE TEACHERS' TRAINING SUPPORT BY LDSTTI

Descriptions of subject-wise training as imparted by LDSTTI to teachers of primary schools of the four clusters are given below.

Cluster A: Assembly School- *Bratachari Gram J. B. School*

Class	Round	Subjects	Training date
I	1st	English	07/7/10
		Bengali	08/7/10
		Maths	09/7/10
	2nd	English	23/7/10 & 04/8/10
		Bengali	
		Maths	
	Single-day exposure at Loreto, Sealdah		15/9/10

Class	Subjects	Training date
II	English	23/9/10
	Bengali	24/9/10
	Maths	27/9/10

Cluster B: Assembly School- *Samali F. P. School*

Class	Round	Subject	Training date
I	1st	English	09/7/10
		Bengali	12/7/10
		Maths	22/7/10
	2nd	English	26/7/10 & 27/7/10
		Bengali	
		Maths	

	Single-day exposure at Loreto, Sealdah	22/9/10

Class	Subject	Training date
II	English	28/9/10
	Bengali	29/9/10
	Maths	30/9/10

Cluster C: Assembly School- *Gazipur F. P. School*

Class	Round	Subject	Training date
I	1st	English	14/7/10
		Bengali	15/7/10
		Maths	16/7/10
	2nd	English	29/7/10 &
		Bengali	05/08/10
		Maths	
	Single-day exposure at Loreto, Sealdah		20/9/10

Class	Subject	Training date
II	English	01/10/10
	Bengali	04/10/10
	Maths	05/10/10

Cluster D: Assembly School- *Kirtankhola F. P. School*

Class	Round	Subject	Training date
I	1st	English	19/7/10
		Bengali	20/7/10
		Maths	21/7/10
	2nd	English	30/7/10 &
		Bengali	03/08/10
		Maths	
	Single-day exposure at Loreto, Sealdah		21/9/10

Class	Subject	Training date
II	English	06/10/10
	Bengali	07/10/10
	Maths	08/10/10

OBSERVATIONS OF LDSTTI ABOUT ON-SITE TEACHERS' TRAINING SUPPORT

The programme of sharing of aids, training of teachers in their use and in classroom management began in June 2010, after the SCERT, West Bengal team carried out its initial evaluation.

It was reported that the schools selected were divided into 4 clusters of 8 schools each according to their location so that schools of any one cluster were situated at a relatively closer distance from each other. Even then the distance to be travelled to carry out the training in sites was considerable.

It was informed that teachers teaching in classes I & II of each school attended two days of training , followed by visits from the LDSTTI trainers in the school. LDSTTI has made some observations ,on the process , which are noted below :

1. The teachers were called away quite frequently for election preparation including electoral rolls, etc. They complained about this and expressed their frustration at not being able to try out the new methods which they said they found very interesting and effective on the few occasions they got to use them. The children learned faster and they were able to hold their interest.

2. They were not able to put up their materials to make the classrooms attractive as they had seen in Loreto, Sealdah because there are no doors or windows and sometimes several other classes are using the classrooms.

3. A few schools were found to have one teacher trying to cope with three or even all four classes at the same time. We did not have sufficient time to show her how to do this as multilevel training would take more time than we had in hand.

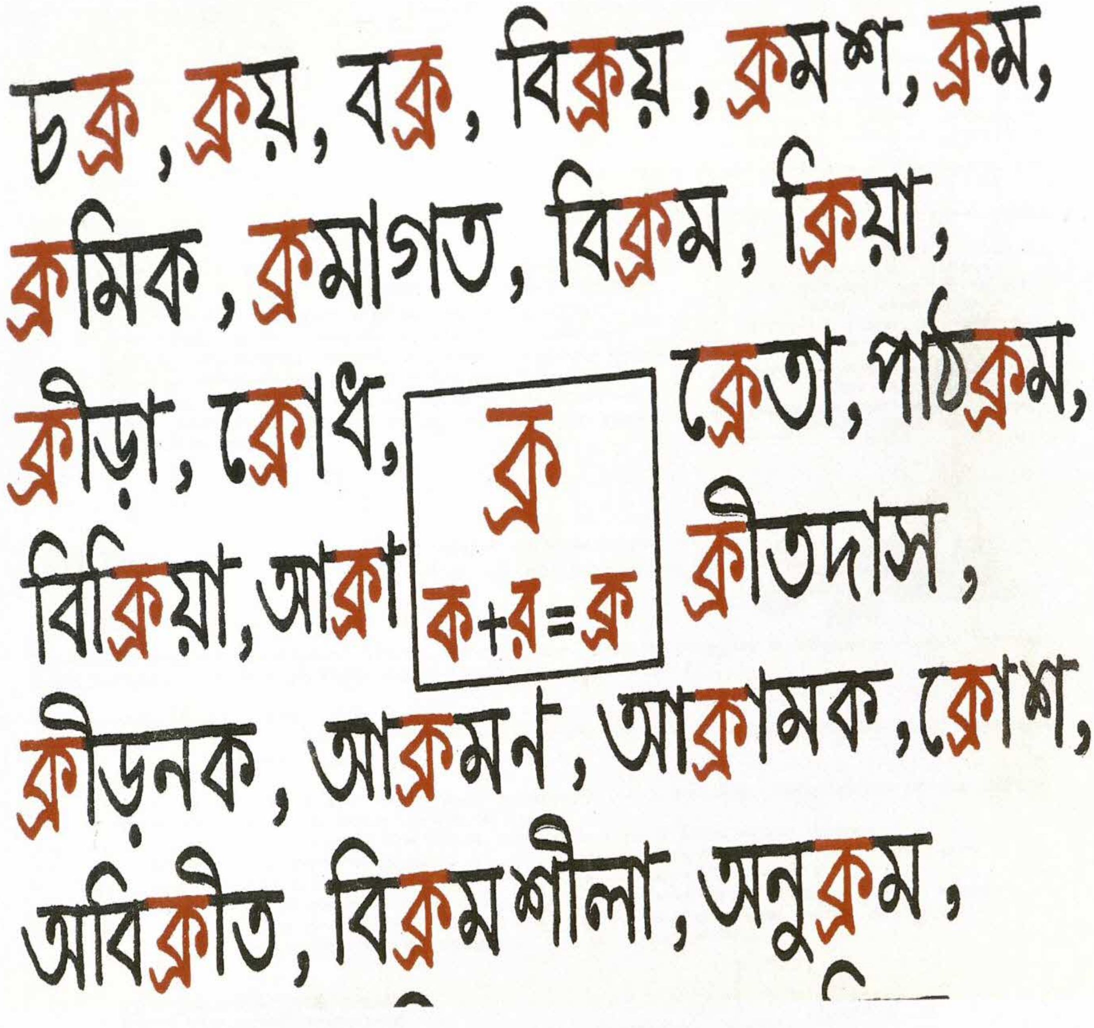
4. Very few schools had the children sitting in groups – not because they did not agree but because they felt they had no time. It will take time to break down the lethargy as well as build up confidence that it will work for them.

5. Of the 32 schools covered by Loreto, Sealdah, we could grade 10 as A, i.e. they are actually implementing the training, teaching the children in groups, using the appropriate TLM and with much more liveliness in the classes, and the children know their work, and can answer well. 5 schools earned a B Grade – no lesson plans, traditional use of text books, although children did know something. 11 schools were given C as very little was happening, children were noisy and teacher in some cases was absent. One was D as they told us not to come back – they could not cope!

It was claimed that the time has been too short to bring about a big change but small improvements have been noticed.

The teachers were very welcoming, very positive about the training methods but said they needed more time. LDSTTI felt that, given the constant demand on them for non academic work, the huge numbers they deal with and the multi-grade teaching they are trying to cope with, their desire to implement was very evident and their failure to do so was also justified.

TLM specimens used in the training by LDSTTI are given below:



চক্র, ক্রয়, বক্র, বিক্রয়, ক্রমশ, ক্রম,

ক্রমিক, ক্রমাগত, বিক্রম, ক্রিয়া,

ক্রীড়া, ক্রোধ, ক্রেতা, পাঠক্রম,

ক্র

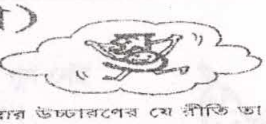
ক+র=ক্র

বিক্রিয়া, আক্রা ক্রীতদাস,

ক্রীড়নক, আক্রমন, আক্রামক, ক্রোশ,

অবিক্রীত, বিক্রমশীলা, অনুক্রম,

বিষয় ঃ ভাষা (বাংলা)

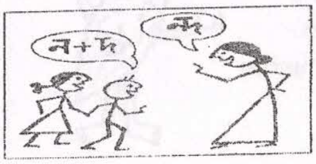


শ্রেণি ঃ ২য়

যুক্তাক্ষর পরিচয়

বাংলা ভাষার দুটি রূপ —— কথা বলার রূপ আর লেখার রূপ। কথ্য ভাষার উচ্চারণের যে রীতি তা লেখার ভাষার বানানকে অনেকটা প্রভাবিত করে। কথ্য ভাষা মনের ভাব প্রকাশে সর্বাধিক ব্যবহৃত হলেও এর রূপটি স্থায়ী নয়। লেখার ভাষা স্থায়ী। ভাষার এই স্থায়ীরূপ দিতে কতকগুলি চিহ্ন আবশ্যিক। একেই লিপি বলে। কিন্তু বানান ভুল করলে এই স্থায়ী রূপটির অর্থ বুঝতে সমস্যা হয়। শুদ্ধ বানান শেখা ও লেখা সেই কারণেই অত্যন্ত জরুরী। এই বিষয়ে আমাদের বিশেষ যত্ন নিতে হবে।

বাংলা ভাষায় যুক্তাক্ষর ও তার বানান অত্যন্ত গুরুত্বপূর্ণ। শিশুদের যত্ন নিয়ে যুক্তাক্ষর শেখানো প্রয়োজন। সাধারণভাবে যুক্তবর্ণের টান জটিল, তারপর কতকগুলি যুক্ত বর্ণের রেখাবিন্যাসের পার্থক্যহেতু বিষয়টি শিশুদের বুঝতে সময় লাগে। শব্দের উচ্চারণের সঙ্গে সেই শব্দটির বানান-এর সম্পর্ক নিবিড়। সেই কারণে প্রথম থেকেই শিশুকে প্রতিটি বর্ণ ও শব্দের শুদ্ধ ও সুষ্ঠ উচ্চারণ শেখাতে হবে। উচ্চারণ শ্রুতিনির্ভর হওয়াই ভাল। স্মৃতিনির্ভর অর্থাৎ মুখস্থ করে বানান শিখলে শিশুর বানান ভুলের সম্ভাবনা বাড়ে।



শিশুকে শব্দের উচ্চারণ অনুসারে বানান লিখে দেখাতে হবে। শব্দের উচ্চারণকে যথাযথ লিখিত রূপ দিতে যে যুক্তাক্ষর শেখা প্রয়োজন, এই কথা বোঝাতে হবে।

যেমন - আমরা যদি 'আনন্দ' শব্দটিকে ভেঙে লিখি (যুক্তাক্ষর ব্যবহার না করে) - আ + ন + ন + দ। কিন্তু এতে 'আনন্দ' শব্দটির সঠিক লিখিতরূপ প্রকাশ পায় না। ন এবং দ এই দুটি বর্ণকে যুক্ত করার প্রয়োজন বিশেষভাবে অনুভূত হয়। সেই কারণে শব্দটির সঠিক ধ্বনিরূপটি অবিকৃত রাখার জন্য যুক্তবর্ণ একান্ত প্রয়োজন। ন + দ = ন্দ → আনন্দ।

- যুক্তাক্ষরের লিখিত রূপটি শিখিয়ে দেবার পর প্রয়োজন শিশুকে আরো অনেক সমজাতীয় যুক্তাক্ষরের সঙ্গে পরিচয় ঘটানো।
- একই যুক্তবর্ণ সম্বলিত পাঠ, ছড়া, কার্যকলাপের মাধ্যমে শিক্ষার্থীদের যুক্তবর্ণের ব্যবহার শেখানো জরুরী। এখানে 'স্ত' দিয়ে একটি নমুনা পাঠ ও ছড়া দেওয়া হল।

● সেদিন রবিবার। মুস্তাক এসেছে রুস্তমের বাড়ি। রুস্তম খুব খুশি। রুস্তমের মা নাস্তা তৈরি করছিলেন। খাস্তা কচুরি আর হালুয়া। ওরা পেট ভরে খেলো। তার পর চললো কুস্তির আখড়ায় লড়াই দেখতে। পাশের বস্তির ওপারে কুস্তির আখড়া। সেখানে দুই মস্ত পালোয়ানের লড়াই দেখলো ওরা। দুপুরে বাড়ি ফিরে খেলো ভাত আর আলুপোস্ত। খুব মজা হল সারাদিন।

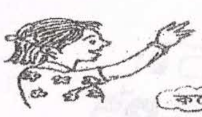
ছড়া

মস্তার নাস্তা

ঘরের কোণে রাখা আছে
বস্তা ভরা মুড়ি।
দোকান থেকে আনতে হবে
খাস্তা কচুরি।

কাজের বাড়ি ব্যস্ত সবাই
কারো সময় নাই।
মোস্তাফাভাই কাজে যাবে
নাস্তা করা চাই।

(১)



পাঠ্য পুস্তক ভিত্তিক কার্যকলাপ

খুকি ও কাঠবেড়ালি



কথোপকথন

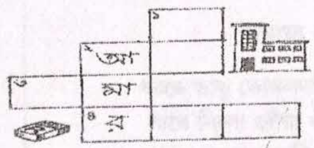
শিক্ষাসেবী প্রাণবন্ত আলোচনার মাধ্যমে বিভিন্ন বিষয় সম্পর্কে শিশুদের ওয়াকিবহাল করতে পারেন। এইভাবে ভাষা শেখার সঙ্গে সঙ্গে পরিবেশ পরিচিত ঘটানো সম্ভব।

● তোমরা বলতে পারো গাছে কারা থাকে?

সম্ভাব্য উত্তর —— পাখি, পোকা (কীট পতঙ্গ), কাঠবেরালি, বাদুড়, পেঁচা, শামুক, পিঁপড়ে, সাপ, উইপোকা, মৌমাছি ....

- শিশুদের উত্তর দেবার জন্য সময় দিন। প্রয়োজনে সূত্র ধরিয়ে দিন। আলোচনার মাধ্যমে বিভিন্ন বিষয়ের শ্রেণিবিভাগের ধারণা দেওয়া যায়।
  - তোমরা যে যে প্রাণীর নাম বললে তার মধ্যে কাদের গায়ে পালক আছে?
  - কাদের গায়ে লোম আছে?
  - কাদের বাচ্চা হয়?
  - কারা গাছের ডালে বাসা করে থাকে?
  - কাদের শরীরে কোন হাড় নেই?
  - কারা রাতের বেলায় বাইরে বেরোয়?
  - কাদের গায়ে পালক বা লোম নেই?
  - কারা ডিম পাড়ে?
  - কারা গাছের কোটরে / গর্তে থাকে?
  - কাদের দিনের বেলায় দেখা যায়?
  - কে কী খায়?

ছক থেকে শব্দ খুঁজে গোল দাগ দাও। শব্দটি আতায় লেখ			
গা	বা	তা	বি
র	পে	এ	নু
ছৌ	লা	ট্র	বা
চা	দা	শ	ক

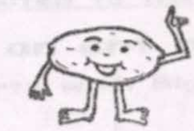


১. মানুষের থাকবার জায়গা।
২. 'আব'-এর উল্টো।
৩. মায়ের ভাই।
৪. পেনসিলের দাগ মোছার জিনিস।

শব্দ খোঁজা ঃ কার্যপত্রের মাধ্যমে শিশুদের শব্দ খোঁজা এবং শব্দ তৈরির এইরকম কাজ আপনি দিতে পারেন।

(২)

যে পদই রাঁধো তুমি
আমার থাকা চাই।
মাটির তলায় থাকি আমি
নেইকো জুড়ি ভাই।

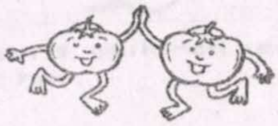


লোকে বলে গুণ নেই
তবু কত দাম !
বার্তাকু নামে ডেকে
তাকে চিনলাম ।





খেতে পারো সুক্তো,
খেতে পারো ভাজা।
আমায় খেলে জেনো ঠিক
শরীর হবে তাজা।



টুকটুকে লাল ফল
খাও রকমারি-
খেতে পারো চাট্‌নি
সস্ থেকে কারি।

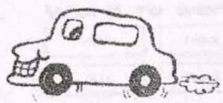
সাদা থেকে 'সা' যদি
বাদ দাও দাদা।
'আ' আগে জুড়ে নাও
যাবে বেশ রাঁধা।



মুখে দিলে 'উরিবাবা'!
সবুজ কি লাল ।
তবু তাকে দরকার
যদি চাও ঝাল ।



৩



শান্ত ছেলে

ঐ যে দেখো ঝুলছে গাছে
থোকা থোকা জাম।
ঐ কথাটা অন্য কথায়
'ঝুলন্ত' বললাম।

ঐ যে দেখো ঝমঝমিয়ে
যায় যে চলে গাড়ি।
'চলন্ত' কথাটা জানো
না হলে আনাড়ি।

ঐ যে দেখো আসন পেতে
বসে আছে চুপ !
ভালো ছেলে এমনই হয়
কেমন 'শান্ত' রূপ।

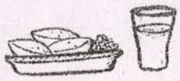


৪

সস্তার নাস্তা

ঘরের কোণে রাখা আছে
বস্তা ভরা মুড়ি ।
দোকান থেকে আনতে হবে
খাস্তা কচুরি।

কাজের বাড়ি ব্যস্ত সবাই
কারো সময় নাই।
মোস্তাফা ভাই কাজে যাবে
নাস্তা করা চাই।



চম্বলে ভোম্বল

ধরতে ডাকু ভোম্বলদা চললো সোজা চম্বল
সাথে নিলো রোঁয়া ওঠা সুবাসিত কম্বল।
ডাকুর বাড়ি খেয়ে খানা
অম্বলে পেট আধখানা।
ফিরে এলো হতভম্ব হাড় কখানা সম্বল।

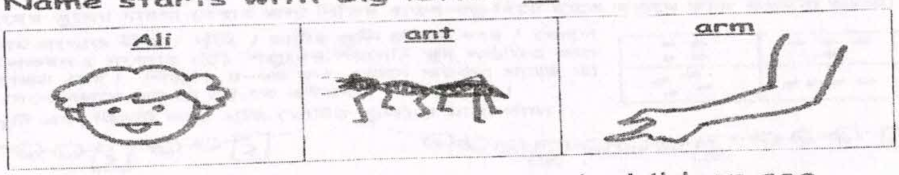
৫

Class - I

Activities related to the sentence with the letter A

1. **Ali has an ant on his arm.**

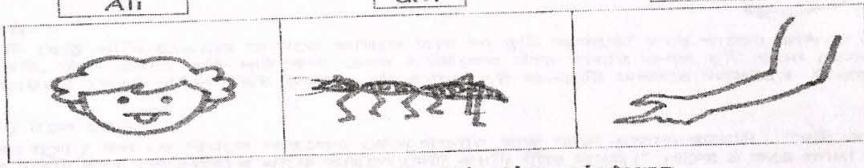
Name starts with Big letter A.



Teacher shows and says the word, children see the picture and repeats after her.

2. Flash Cards

Ali	ant	arm



- Children match the word with the picture
- Other Words of the Sentence (Sight words)

has	an	on	his

3. Word to word matching.

Ali	has	an	ant	on	his	arm.
Ali	has	an	ant	on	his	arm.

4. Reading the sentence with the help of flash cards.

Ali	has	an	ant	on	his	arm.

5. Writing Big letter and Small letter A a on 4 lines.

6. Sentence to sentence matching.

Ali has an ant on his arm.

Ali has an ant on his arm.

7. Sentence jigsaw

Ali has > an ant < on his arm.

8. Bingo Game

Ali		has		an		ant
	on		his			arm.

9. Placing the words to make the sentence.

Ali	has	an	ant	on	his	arm.

গুণ

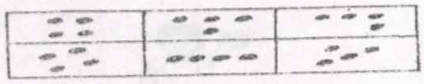
❑ গুণের ধারণা

শিশুরা খুব সহজেই প্রাত্যহিক জীবনের বিভিন্ন জিনিসপত্রে একসঙ্গে বিভিন্ন বস্তু খুঁজে পেতে পারে। যেমন দুটি পা, চারটি পা, পাঁচটি আঙুল, পায়ের দশটি আঙুল এবং তারার ছয়টি কোণ প্রভৃতি।

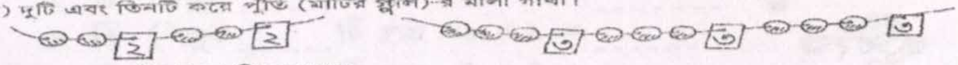
❑ নমুনা কার্যকলাপ

শিশুদের গুণের ধারণা দেবার জন্য বিভিন্ন বাস্তব বস্তু দিয়ে হাতে কলমে কাজ করানো জরুরী।

ক) সম সংখ্যক বীজ / পুঁতি / মাটির গুলি প্রতিটি ঘরে / খোপে রাখা। (উপকরণ ঃ সংখ্যার ট্রে) শিশুদের সরাসরি গুণ পদ্ধতির কথা বলার প্রয়োজন নেই। শিশুরা ৪-এর দল এখানে কয়বার আছে তা নিজেরাই দেখে বলবে, সংখ্যা ট্রে-তে এইরকম দল সাজাবে।



খ) দুটি এবং তিনটি করে পুঁতি (মাটির গুলি)-র মালা গাঁথা।



এই মালায় কয়টি দুই বা তিন আছে?

গ) সংখ্যার গল্প

এটা হল পাঁচ-এর গল্প। আমি আমার বাঁ হাতটি ধরলাম। আমার বাঁহাতে পাঁচটি আঙুল। আবার ডান হাতেও পাঁচটি আঙুল। বাঁ পায়েও আঙুল পাঁচটি। ডান পা-তে পাঁচটি আঙুল। তাহলে হাত আর পা মিলিয়ে কতগুলি পাঁচ আছে?

এটা বলা খুবই সোজা। হাত আর পা মিলিয়ে চারটি পাঁচ আছে।



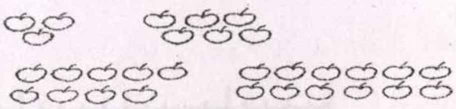
দুই-এর গল্প

❑ "একটি ছোট্ট পাখি হাওয়ায় ভাসতে ভাসতে তার পা দুটি আলতো করে গাছের ডাল-এ ছুঁইয়ে নিল। পথ চলতি মানুষটি, যিনি একটি রেললাইন-সাইকেল চেপে যাচ্ছিলেন তাঁর মাথার ওপর দুটি ডানা মেলে এক পাক খেল পাখিটি। তারপর ডেকে উঠল টুইই টুইই ....." এখানে দুই সংখ্যাটি কতবার আসছে? উত্তর — চারবার দুই আসছে।

❑ গ্রুপ / দলে গোনা

শিশুরা গ্রুপ / দল কে চিনতে পারলেও কোন গণনার কাজ তারা এখনও করেনি। "যদি আমার কাছে তিনটি গ্রুপ / দলে চারটি করে তেঁতুলবীজ থাকে তাহলে মোট কয়টি বীজ আছে।" এসো ৪ করে গণনা করি.... ৪, ৮, ১২, হ্যাঁ আমার কাছে ১২টি বীজ আছে।

বিষয়টি ছড়াগানের মাধ্যমেও শেখানো যায়।



- "২, ৪, ৬, ৮, ১০ — দশজনে চলি মস্ মস্।"
- "৩, ৬, ৯, ১২ — তিন করে গুণতে পারি আরো।"
- "৪, ৮, ১২, ১৬, ২০ — ফল গুণে ভরতে পারি ঝুড়ি।"

❑ গুণের ভাষা

'বার' (times) শব্দটির পরিচয়

সাধারণ কয়েকটি শ্রেনিকক্ষের কার্যকলাপের মাধ্যমে এই বিষয়ের ধারণা দেওয়া সম্ভব। যেমন—টেবিল / মেঝেতে বীজ বা কাঠি সাজানো। একটি শিশুকে ২টি বীজ আনতে বলা হল। আবার তাকে ২টি বীজ আনতে বলা

(১)

হল। (শিশুটি আনলো)। আবার তাকে ২টি বীজ আনতে বলা হল। এবার শ্রেনির শিশুদের প্রশ্ন করুন।

ক) কতবার পুজা টেবিলের কাছে গেল? — তিন বার।

(৩ বার ২ মিলে হয় ৬। চিহ্নের সাহায্যে প্রকাশ করলে এইভাবে লেখা যায় ৩ × ২ = ৬)

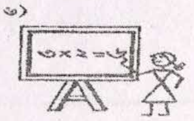
★ তিন বার কথাটি ব্ল্যাকবোর্ডে লিখতে হবে।

খ) প্রতিবার সে টেবিলের কাছে গিয়ে কি আনল? — ২টি বীজ।

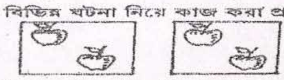
★ ব্ল্যাকবোর্ডে ৩ বার ২ কথাটি লিখতে হবে।

গ) সব মিলিয়ে কতগুলি বীজ আনা হল? — মোট ৬টি বীজ।

★ ব্ল্যাকবোর্ডে লিখতে হবে ৩ বার ২ মিলে হয় ৬।



সুতরাং বিভিন্ন ঘটনা নিয়ে কাজ করা প্রয়োজন। বাস্তব বস্তুর পরিবর্তে ছবির সাহায্যেও শিশুরা গুণ শিখতে পারে।



প্রতিটি কার্ডে ২টি আপেল আছে।

★★ এইভাবে খুব সহজেই শূন্য দিয়ে গুণ করাও শেখানো যায়। শিশুটি টেবিলের কাছে ৩ বার গেল। প্রতিবারই সে কিছুই আনল না। "৩ বার শূন্য মিলে হয় (শূণ্য) ০।"

'×' চিহ্নের পরিচয়

এইবার শিক্ষাসেবী "বার" কথাটির পরিবর্তে গুণের 'চিহ্ন' শেখাবেন। ৩ বার ৪ মিলে হয় ১২ এখন লিখতে হবে ৩ × ৪ = ১২।

৩	×	৪	=	১২

এই সময় থেকেই শিশুরা লিখিতভাবে গুণ করতে শুরু করবে।

নমুনা কর্মপত্র

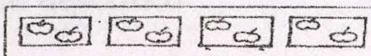
বিন্যাস / সেট



প্রঃ কয়টি আমের সেট আছে?
প্রঃ প্রতিটি সেট-এ কয়টি আম আছে?
প্রঃ সবমিলিয়ে কয়টি আম আছে?

উঃ আমের দুইটি সেট আছে।
উঃ প্রতিটি সেট-এ ৪টি করে আম আছে।
উঃ সবমিলিয়ে ৮টি আম আছে।
২ বার ৪ মিলে হয় ৮

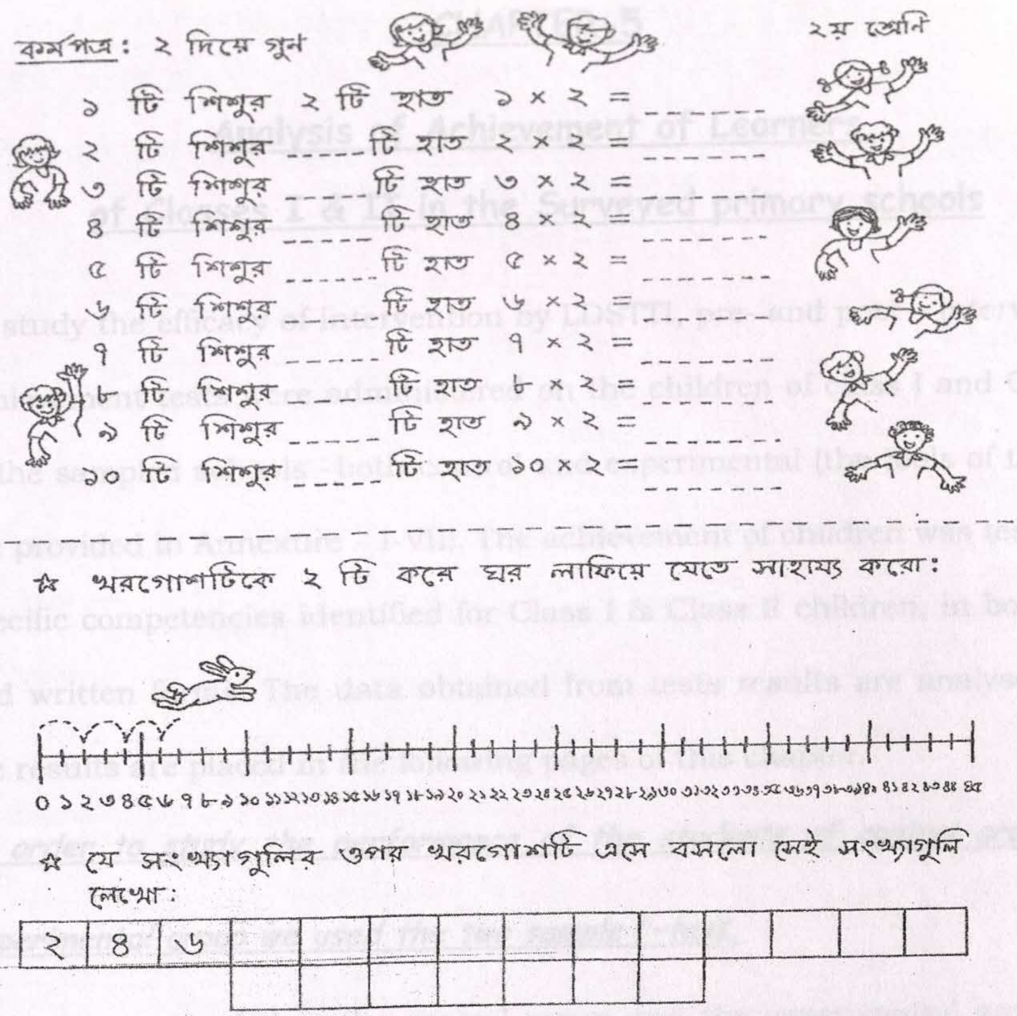
বিন্যাস / /সেট



প্রঃ আপেলের কয়টি সেট আছে?
- প্রতিটি সেট-এ কয়টি আপেল আছে?
- সব মিলিয়ে কয়টি আপেল আছে?

উঃ ....
....
....
....

(২)



The LDSTTI administered the above mentioned interventions in the selected primary schools. It was assumed that these new ways of training will affect the achievement levels of the learners. In the following chapter, this hypothesis is being tested, analyzed and described.

CHAPTER-5

Analysis of Achievement of Learners of Classes I & II in the Surveyed primary schools

To study the efficacy of intervention by LDSTTI, pre- and post – intervention achievement tests were administered on the children of class I and Class II of the sampled schools –both control and experimental (the tools of the test are provided in Annexure – I-VII). The achievement of children was tested on specific competencies identified for Class I & Class II children, in both oral and written forms. The data obtained from tests results are analysed and the results are placed in the following pages of this chapter.

In order to study the performance of the students of control group and experimental group we used the two sample t-test.

Here we assumed that the control group and the experimental group are independent. Also the test scores of the students are normally distributed for both the groups with equal variance.

Now, we test the null hypothesis (H_0) that there is no significant difference between the mean achievement of the students of control group and experimental group in both pre-test and post-test results.

This is against the alternative hypothesis (H_a) that there will be difference between the mean achievement of the students of control group and experimental group in both pre-test and post-test results.

A) Analysis of Achievement of Learners of Class I in the Surveyed primary schools

STATISTICAL ANALYSIS OF ACHIEVEMENT IN BENGALI OF STUDENTS OF SURVEYED PRIMARY SCHOOLS

CLASS - I

Measurement / Full Marks	Groups	Bengali Oral		Bengali Written		Bengali Total	
		Pre-Test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Full Marks		**7**	**7**	**6**	**6**	**13**	**13**
Average	Control	5.03	5.62	4.3	4.9	9.3	10.5
	Experimental	5.06	5.81	4.6	5.1	9.6	10.9
Median	Control	5	6	5.5	6	10	11.5
	Experimental	5.5	6	5.5	6	11	12
Mode	Control	5	7	6	6	13	13
	Experimental	7	7	6	6	13	13
Standard Deviation	Control	0.63	1.42	2.1	1.75	3.3	2.74
	Experimental	1.84	1.36	1.9	1.58	3.27	2.49
t(observed)value	-----	0.9030136	0.1972	0.159	0..26	0.358	0.16

When the pre-test result in Bengali oral of the control group was compared with that of the experimental group at mean level performance the null hypothesis is not rejected at 5 % level of significance and ***it can be concluded that there is not enough evidence to support the fact that there is a difference between the mean achievement of the students of control group and experimental group in pre-test result in Bengali oral. The same observation is found in case of Bengali Written, Bengali Total and also in post-test result.***

STATISTICAL ANALYSIS OF ACHIEVEMENT IN ENGLISH OF STUDENTS OF SURVEYED PRIMARY SCHOOLS

CLASS - I

Measure-Ment / Full Marks	Groups	English Oral	
		Pre-test	Post-test
		6	6
Average	Control	1.2	2.9
	Experimental	1.42	2.98
Median	Control	1	3
	Experimental	1	3
Mode	Control	1	2
	Experimental	1	2
Standard Deviation	Control	1.06	1.86
	Experimental	1.34	1.73
t (observed) value	-------	0.13	0.71

When the pre-test result in English oral of the control group was compared with that of the experimental group at mean level performance the null hypothesis is not rejected at 5 % level of significance and ***it can be concluded that there is not enough evidence to support the fact that there is a difference between the mean achievement of the students of control group and experimental group in pre-test result in English oral. The same observation is found in post-test result.***

STATISTICAL ANALYSIS OF ACHIEVEMENT IN MATHEMATICS OF STUDENTS OF SURVEYED PRIMARY SCHOOLS

CLASS - I

Measurement / Full Marks	Groups	Mathematics Oral		Mathematics Written		Mathematics Total	
		Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Full Marks		**7**	**7**	**4**	**4**	**11**	**11**
Average	Control	6.2	6.6	2.93	3.6	9.1	10.2
	Experimental	6.2	6.67	2.84	3.7	9.0	10.3
Median	Control	7	7	4	4	11	11
	Experimental	7	7	4	4	10	11
Mode	Control	7	7	4	4	11	11
	Experimental	7	7	4	4	11	11
Standard Deviation	Control	1.7	1.07	1.6	0.96	2.7	1.64
	Experimental	1.7	0.95	1.68	0.9	2.77	1.48
t (observed) value		0.9	0.51	0.62	0.58	0.69	0.44

When the pre-test result in Mathematics oral of the control group was compared with that of the experimental group at mean level performance the null hypothesis is not rejected at 5 % level of significance and we can ***conclude that there is not enough evidence to support the fact that there is a difference between the mean achievement of the students of control group and experimental group in pre-test result in Mathematics oral. The same observation is found in case of Mathematics Written, Mathematics Total and also in post-test result.***

In order to study the performance of the students of pre-test and post-test we used the paired t-test.

Here we assumed that test scores of the students are normally distributed for both the pre-test and post-test with equal variance.

Here we want to test the null hypothesis (H_0) that there is no significant difference between the mean achievement of the students of pre-test result and post-test result.

This is against the alternative hypothesis (H_a) that there will be difference between the mean achievement of the students of pre-test result and post-test result.

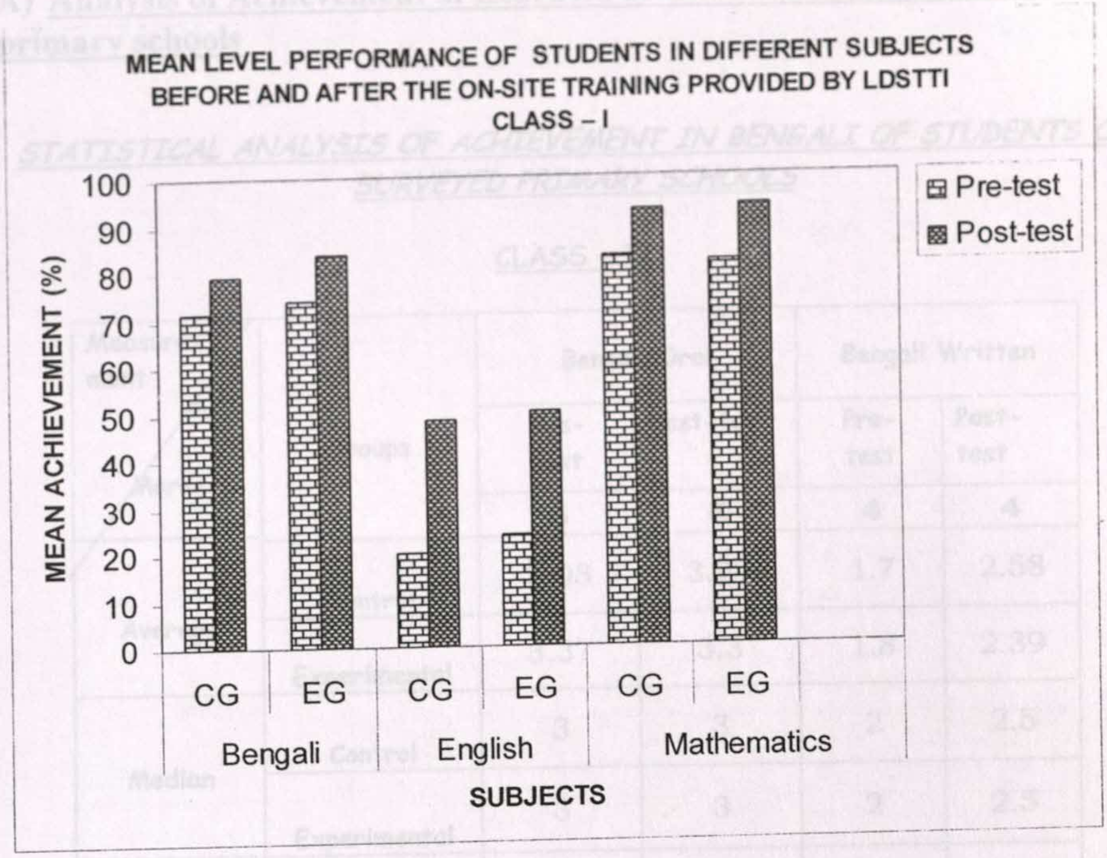
When the pre-test result of the experimental group was compared with the post-test result of the experimental group at mean level performance the null hypothesis is not rejected at 5 % level of significance and it can be concluded that there is not enough evidence to support the fact that there is a difference between the mean achievement of the students of pre-test and post-test results.

The above result was observed in case of all the three subjects, namely, Bengali, English and Mathematics also for the control group of schools.

MEAN LEVEL PERFORMANCE OF STUDENTS IN DIFFERENT SUBJECTS BEFORE AND AFTER THE ON-SITE TRAINING PROVIDED BY LDSTTI

CLASS - I

Pre-test / Post-test	MEAN ACHIEVEMENT (%)					
	Bengali		English		Mathematics	
	Control Group (CG)	Experimental Group (EG)	Control Group(CG)	Experimental Group (EG)	Control Group(CG)	Experimental Group (EG)
Pre-test	71.5	73.8	20	23.6	82.7	81.8
Post-test	79.2	83.8	48.3	49.7	92.7	93.6


MEAN LEVEL PERFORMANCE OF STUDENTS IN DIFFERENT SUBJECTS
BEFORE AND AFTER THE ON-SITE TRAINING PROVIDED BY LDSTTI
CLASS – I
Pre-test
Post-test
MEAN ACHIEVEMENT (%)
100
90
80
70
60
50
40
30
20
10
0
CG
EG
CG
EG
CG
EG
Bengali
English
Mathematics
SUBJECTS

A) Analysis of Achievement of Learners of Class - II in the Surveyed primary schools

STATISTICAL ANALYSIS OF ACHIEVEMENT IN BENGALI OF STUDENTS OF SURVEYED PRIMARY SCHOOLS

CLASS - II

Measurement / Full Marks	Groups	Bengali Oral		Bengali Written	
		Pre-test	Post-test	Pre-test	Post-test
		6	6	4	4
Average	Control	3.08	3.29	1.7	2.58
	Experimental	3.37	3.3	1.8	2.39
Median	Control	3	3	2	2.5
	Experimental	3	3	2	2.5
Mode	Control	3	3	2	3
	Experimental	3	3	2	3
Standard Deviation	Control	1.7	1.59	1.17	1.02
	Experimental	1.60	1.70	1.20	1.17
t (observed) value	-----	0.08	0.92	0.52	0.29

When the pre-test result in Bengali oral of the control group was compared with that of the experimental group at mean level performance the null hypothesis is not rejected at 5 % level of significance and ***it can be concluded that there is not enough evidence to support the fact that there is a difference between the mean achievement of the students of control group and experimental group in pre-test result in Bengali oral. The same observation is found in case of Bengali Written, Bengali Total and also in post-test result.***

STATISTICAL ANALYSIS OF ACHIEVEMENT IN ENGLISH OF STUDENTS OF SURVEYED PRIMARY SCHOOLS

CLASS - II

Measure-ment / Full Marks	Groups	English Oral	
		Pre-test	Post-test
Full Marks		9	9
Average	Control	3.54	5.10
	Experimental	4.15	5.22
Median	Control	3	5
	Experimental	4	5.25
Mode	Control	3	9
	Experimental	2	9
Standard Deviation	Control	2.30	2.74
	Experimental	2.64	2.64
t (observed) value	-------	0.02	0.67

When the pre-test result in English oral of the control group was compared with that of the experimental group at mean level performance the null hypothesis is not rejected at 5 % level of significance and ***it can be concluded that there is not enough evidence to support the fact that there is a difference between the mean achievement of the students of control group and experimental group in pre-test result in English oral. The same observation is found in post-test result.***

STATISTICAL ANALYSIS OF ACHIEVEMENT IN MATHEMATICS OF STUDENTS OF SURVEYED PRIMARY SCHOOLS

CLASS - II

Measurement	Groups	Mathematics Oral		Mathematics Written	
		Pre-test	Post-test	Pre-test	Post-test
Full Marks		5	5	6	6
Average	Control	3.03	3.18	1.87	3.07
	Experimental	3.66	3.49	2.32	2.71
Median	Control	3.5	4	1	3
	Experimental	4	4	2	2.5
Mode	Control	5	5	0	2
	Experimental	5	5	0	2
Standard Deviation	Control	1.68	1.75	1.76	1.53
	Experimental	2.19	1.45	1.93	1.57
t (observed) value	----	0.003	0.06	0.02	0.03

When the pre-test result in Mathematics oral of the control group was compared with that of the experimental group at mean level performance the null hypothesis is not rejected at 5 % level of significance and we ***can conclude that there is not enough evidence to support the fact that there is a difference between the mean achievement of the students of control group and experimental group in pre-test result in Mathematics oral. The same observation is found in case of Mathematics Written, Mathematics Total and also in post-test result.***

In order to study the performance of the students of pre-test and post-test we used the paired t-test.

Here we assumed that test scores of the students are normally distributed for both the pre-test and post-test with equal variance.

Here we want to test the null hypothesis (H_0) that there is no significant difference between the mean achievement of the class - II students of pre-test result and post-test result.

This is against the alternative hypothesis (H_a) that there will be difference between the mean achievement of the class - II students of pre-test result and post-test result.

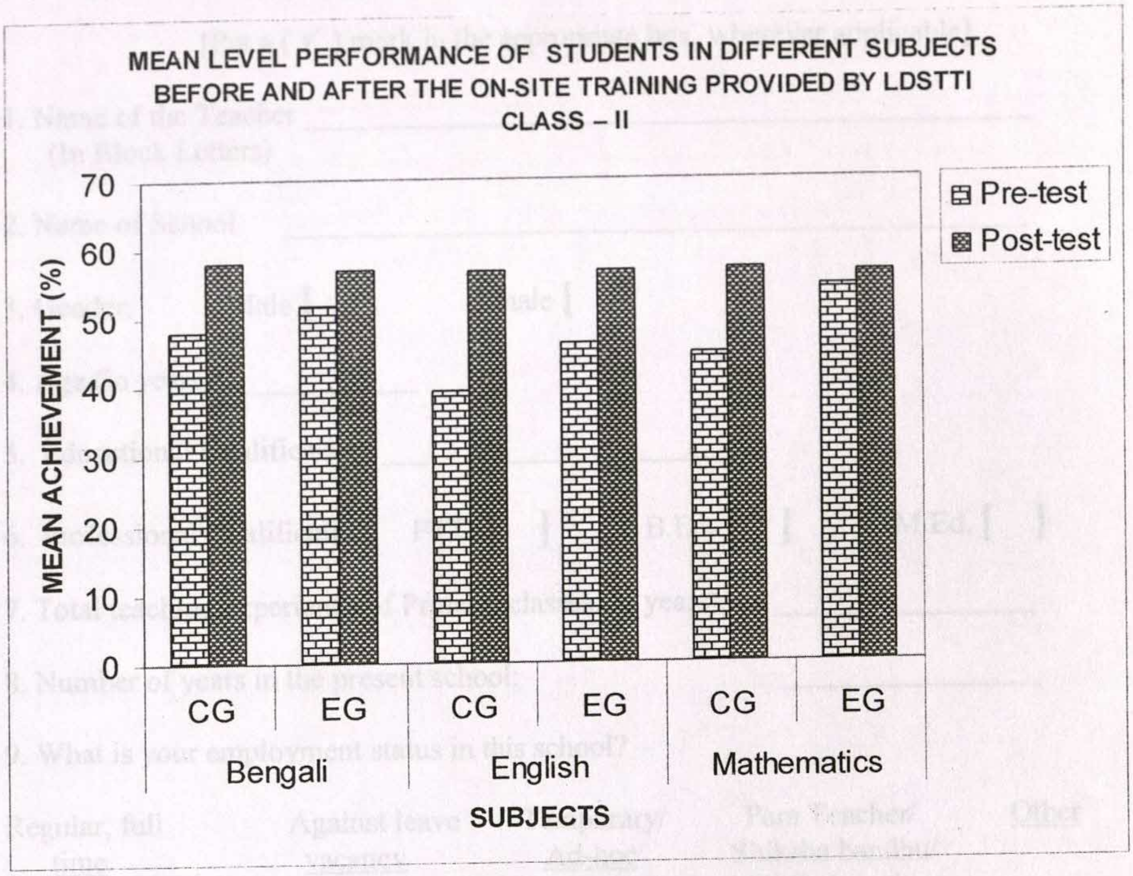
When the pre-test result of the experimental group was compared with the post-test result of the experimental group at mean level performance the null hypothesis is not rejected at 5 % level of significance and it can be concluded that there is not enough evidence to support the fact that there is a difference between the mean achievement of the students of pre-test and post-test results.

The above result was observed in case of all the three subjects, namely, Bengali, English and Mathematics also for the control group of schools.

MEAN LEVEL PERFORMANCE OF STUDENTS IN DIFFERENT SUBJECTS BEFORE AND AFTER THE ON-SITE TRAINING PROVIDED BY LDSTTI

CLASS - II

Pre-test / Post-test	MEAN ACHIEVEMENT (%)					
	Bengali		English		Mathematics	
	Control Group (CG)	Experimental Group (EG)	Control Group(CG)	Experimental Group (EG)	Control Group(CG)	Experimental Group (EG)
Pre-test	48.00	51.70	39.33	46.11	44.54	54.36
Post-test	58.00	57.00	56.66	56.66	56.81	56.36



The analysis of data as presented above indicate that there was no significant impact of the training of teachers provided by the LDSTTI on the achievement of the learners in the experimental schools compared to the achievement of the learners in the control schools.

It may be pertinent to mention that the training of the teachers of the control group of schools during the period the study was provided by the West Bengal Board of Primary Education.

State Council of Educational Research & Training (WB)
25 / 3, Ballygunge Circular Road, Kolkata - 700019

TEACHERS' QUESTIONNAIRE

[Put a (✓) mark in the appropriate box, wherever applicable]

1. Name of the Teacher ______________________________
   (In Block Letters)

2. Name of School ______________________________

3. Gender: Male [ ] Female [ ]

4. Age (in years): __________

5. Educational Qualification: ______________________

6. Professional Qualification: PTTI [ ] B.Ed. [ ] M.Ed. [ ]

7. Total teaching experience of Primary classes (in years): ______________________

8. Number of years in the present school:

9. What is your employment status in this school?

Regular, full time	Against leave vacancy	Temporary/ Ad-hoc	Para Teacher/ Shiksha bandhu/ Shikshakarmi etc.	Other
[ ]	[ ]	[ ]	[ ]	[ ]

10. Please specify details of the training attended by you in past two years:

Sl.	Duration (in days)	Subject	Organised By
1.			
2.			

11. Have you undergone training on teaching of English for classes I and II provided by WBBPE? Yes [ ] No [ ]

12. Do you face any challenges during application of the above mentioned training in the classroom?

----

13. How frequently do you give homework to your students in class?

Regularly [ ] Some times [ ] Not at all [ ]

14. What kind of activities/assignments do the students perform in their group works?

---

15. How often do you meet the parents regarding performances of students?

Regularly [ ] Some times [ ] Not at all [ ]

16. Do you prepare Health Cards/any other record to monitor health and hygiene of student? Yes [ ] No [ ]

17. Observances of Significant Days in School

Sl. No.	Significant days observed in School	Activities conducted on those days

18. Do you organise/participate in organising

(i) short trips Yes [ ] No [ ]

(ii) annual sports for your students? Yes [ ] No [ ]

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Classroom Observation Schedule

1. Name of the School: ____________________

2. Class Observed ____________________

3. Name of the Teacher ____________________

4. a) Subject taught: ____________ b) Topic taught: ____________

5. Total No. of students in the class : ____________

6. Type of Class room sitting : (a) Monograde [ ] (b) Multigrade [ ]

7. Classroom Organisation (seating arrangement):
   (a) Rows [ ] (b) Large Groups [ ] (c) Small Groups [ ]

8. Space for Group Activity: Adequate [ ] Inadequate [ ]

9. Availability of text books with (a) Children: Yes [ ] No [ ]
   (b) Teacher: Yes [ ] No [ ]

10. Availability of supplementary text materials [e.g. Teachers' Handbook, Workbook, Worksheets, etc.] with (a) Children: Yes [ ] No [ ]
    (b) Teacher : Yes [ ] No [ ]

11. The teacher is prepared with pre-plan for conducting the classroom teaching:
    Yes [ ] No [ ]

12. Method of introducing the lesson:
    a) Direct (Narrative/Teacher-centric method) [ ]
    b) Interactive/Participatory approach (Learner-centric method) [ ]
    c) Mixed method [ ]
    d) Any other (specify) ....

13. If there is classroom activity, the way those are conducted:
    a) Individually [ ] b) In large Groups [ ]
    c) In small groups [ ] d) By the teacher himself/ herself [ ]

14. Method(s)/Approach(es) for teaching the lesson:
    a) Teacher dominated [ ] b) Child-centred [ ]

15. Type of questions asked by the teacher during teaching-learning:
    (a) Book-based [ ] (b) Teacher made [ ]
    (c) Related to experiences of daily life [ ] (d) Probing Questions [ ]

16. How often do the children ask questions in class:
(a) Frequently [ ] (b) Infrequently [ ] (c) Never [ ]

17. The teacher encourages the students to ask more questions:
Yes [ ] No [ ]

18. Proficiency of teacher in communication as demonstrated by:
(a) Skill of explanation [ ] (b) Skill of providing appropriate examples [ ]
(c) Skill of using pictorial teaching-learning aids [ ]

19. Use of Black Board in classroom teaching:
a) Only by teacher [ ] b) Only by children [ ]
c) By Both [ ] d) By None [ ]

20. Mode of Learners' Assessment:
(a) Only oral [ ] (b) Only written [ ] (c) Both [ ]

21. Home work assigned: (a) Yes [ ] (b) No [ ]

22. If 'Yes', nature of Homework :
(a) book-based [ ] (b) Teacher-prepared [ ] (c) Both [ ]

23. Mode of assessment of Homework:
(a) By the teacher [ ] b) By peer group [ ] (c) Not checked [ ]

24. Teacher praises/encourages student :
Yes [ ] No [ ] Sometimes [ ]

25. Incorporates humor during interaction:
Yes [ ] No [ ] Sometimes [ ]

26. Gives clear instructions / clarifies instructions to the students:
Yes [ ] No [ ] Sometimes [ ]

27. Initiates and encourages Group / Peer- learning:
Yes [ ] No [ ] Sometimes [ ]

28. Periods of silence/confusion in the class:
Yes [ ] No [ ] Sometimes [ ]

29. Senses the mood of the students and modifies classroom transaction accordingly:
Yes [ ] No [ ] Sometimes [ ]

30. Rephrases incorrect responses of the students:
Yes [ ] No [ ] Sometimes [ ]

রাজ্য শিক্ষা গবেষণা ও প্রশিক্ষণ পরিষদ (প: ব:)
২৫/৩, বালিগঞ্জ সারকুলার রোড
কোলকাতা - ৭০০০১৯

বিদ্যালয় পরিকাঠামো সম্পর্কিত প্রশ্নোত্তরিকা

১। বিদ্যালয়ের নাম ও ঠিকানা : --

প্রধান শিক্ষক মহাশয়ের নাম, ঠিকানা ও দূরভাষ : --

২। এলাকা : গ্রাম ☐ শহর ☐

৩। বিদ্যালয়ের সময় : ---------------- মি: থেকে ---------------- মি:

৪। শিক্ষার্থীর সংখ্যা: বালক ☐ বালিকা ☐ মোট ☐

৫। সমীক্ষার দিন উপস্থিত শিক্ষার্থীর সংখ্যা: বালক ☐ বালিকা ☐ মোট ☐

৬। শিক্ষক/ শিক্ষিকার সংখ্যা (প্রধান শিক্ষক/ শিক্ষিকা সহ):

শিক্ষক ☐ শিক্ষিকা ☐ মোট ☐

৭।

বিদ্যালয়ে সুযোগ সুবিধা / পরিকাঠামো	আছে	নেই
১। নিজস্ব গৃহ		
২। ব্যবহারযোগ্য শৌচাগার		
৩। পানীয় জল		
৪। খেলার মাঠ ও খেলার সামগ্রী		
৫। বালিকাদের জন্য আলাদা শৌচাগার		
৬। শিক্ষণ - শিখন সামগ্রী		
৭। রান্না করা মধ্যাহ্নকালীন আহার যোজনা		

৮। উপযুক্ত সংখ্যায় বেঞ্চ, টেবিল ও চেয়ার		
৯। উপযুক্ত সংখ্যার শ্রেনিকক্ষ		
১০। শিক্ষার্থী সংখ্যার অনুপাতে উপযুক্ত সংখ্যায় শিক্ষক- শিক্ষিকা		
১১। বিদ্যুৎ সংযোগ		
১২। বিদ্যালয়ে যাতায়াতের জন্য পরিচ্ছন্ন, বাঁধানো রাস্তা		
১৩। সীমানা প্রাচীর		

প্রধান শিক্ষক মহাশয়ের নাম, ঠিকানা ও দূরভাষ :

স্বাক্ষর

রাজ্য শিক্ষা গবেষণা ও প্রশিক্ষণ পরিষদ (প: ব:)
২৫/৩, বালিগঞ্জ সারকুলার রোড
কোলকাতা - ৭০০০১৯

প্রথম শ্রেণি : মৌখিক মূল্যায়ন পূর্ণমান - ২০

১। দেখে বল -- ২

ম আ ই দ

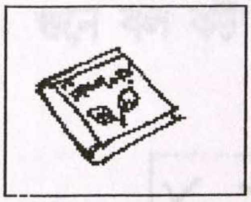
২। প্রথম বর্ণ দিয়ে শুরু একটি শব্দ বলো- ২

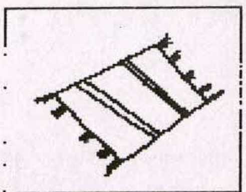
দ আ ই ম

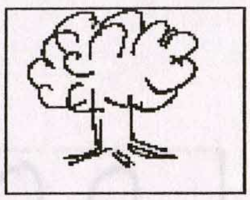
৩। তোমার জানা একটা বাংলা ছড়া বল - (৩ লাইন) ৩

৪। নীচের যে কোন দুটির ছবি দেখিয়ে (বই, মাদুর, গাছ) জিজ্ঞাসা করুন - ২

The teacher will point out to two pictures and the student will speak out the names of the objects.







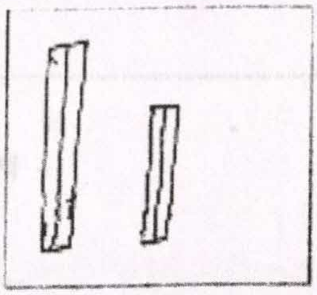
৫। "What's your name, please?" ২

৬। নির্দেশ বুঝতে পারা - ২

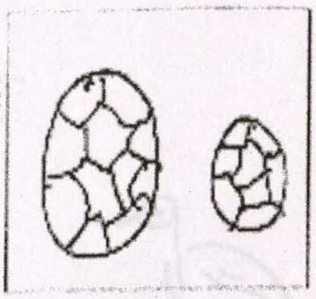
Stand up.
Sit down.
Open your book.
Close your book.

৭। ১ থেকে ৯ পর্যন্ত বল।

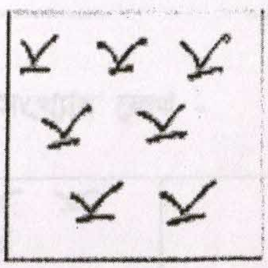
৮। দেখে বল কোনটি লম্বা :-

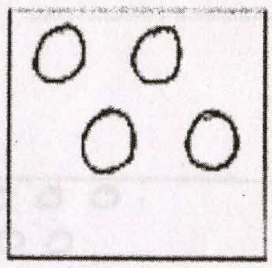


৯। দেখে বল কোনটি বড় আকৃতির :-



১০। গুনে বল কটা আছে :





রাজ্য শিক্ষা গবেষণা ও প্রশিক্ষণ পরিষদ (প: ব:)
২৫/৩, বালিগঞ্জ সারকুলার রোড
কোলকাতা - ৭০০০১৯

লিখিত মূল্যায়ন: শ্রেণি প্রথম পূর্ণমান - ১০

বিদ্যালয়ের নাম : .... ক্রমিক নং :- ....

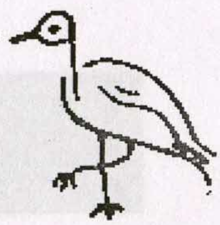
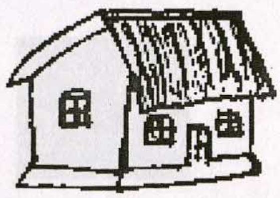
১। দেখে দেখে শব্দগুলি লেখ - ৩

আদা .... মই ....

দম .... চক ....

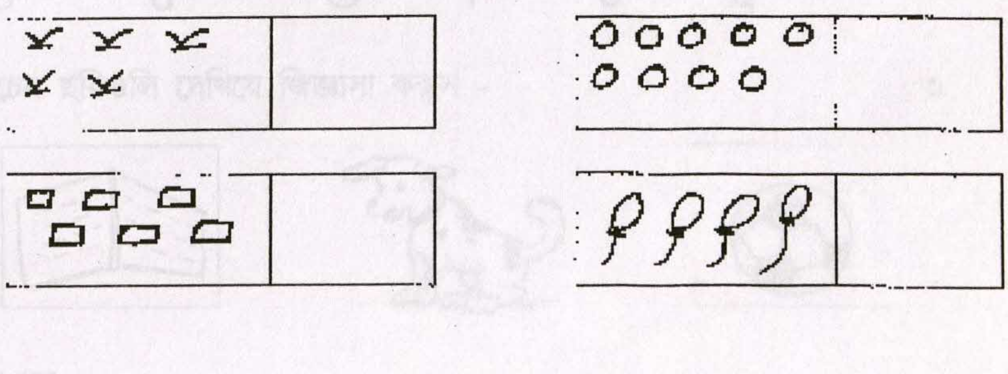
বক .... আম ....

২। ছবিগুলির নাম লেখ- ৩

....

৩। গুনে গুনে সংখ্যায় লেখ - ৪



রাজ্য শিক্ষা গবেষণা ও প্রশিক্ষণ পরিষদ (প: ব:)
২৫/৩, বালিগঞ্জ সারকুলার রোড
কোলকাতা - ৭০০০১৯

দ্বিতীয় শ্রেণি : মৌখিক মূল্যায়ন   পূর্ণমান - ২০

১। পড়ে শোনাও - ৩

ময়ূর - বনের হাট । হাঁস মুরগী কম । শীতের তরকারী বেশী । গাজর, মূলো, পালং বেশ টাটকা । তাজা তাজা ফুলকপি, বাঁধাকপি, শিম, বেগুন, লাউ অনেক । কেনাবেচা বেশ চলছে ।

২। 'ক' থেকে 'ণ' বল । ৩

৩। নীচের রঙগুলি দেখিয়ে জিজ্ঞাসা করুন - ৩

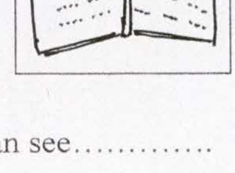
"What colour is this?"

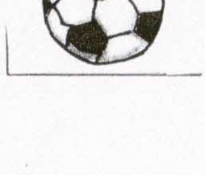


৪। Teacher will point out to different letters of the alphabet and see if the student can recognise them. ৩

B   d   G   f   J   q

৫। নীচের ছবিগুলি দেখিয়ে জিজ্ঞাসা করুন - ৩





"I can see.............

৬। ঠিক পরের সংখ্যা বলো : ৯ ১৭

৭। ঠিক আগের সংখ্যা বলো : ২০, ১৫

৮। সাত আর তিন যোগ করলে কত হয় ?

৯। আট থেকে দুই বিয়োগ করলে কত হয় ?

১০। নিচের সংখ্যাটি দেখে কথায় বলো -

৪৯

রাজ্য শিক্ষা গবেষণা ও প্রশিক্ষণ পরিষদ (প: ব:)
২৫/৩, বালিগঞ্জ সারকুলার রোড
কোলকাতা - ৭০০০১৯

দ্বিতীয় শ্রেণি : লিখিত মূল্যায়ন পূর্ণমান - ১০

বিদ্যালয়ের নাম:- .... ক্রমিক নং :- ....

১। ফাঁকা জায়গায় বর্ণ বসিয়ে শব্দ গড়ো :- ২

ক .... ব ....

..................ম ....ল

২। বাক্য রচনা কর - ২

আমি :..

বই :..

৩। ফাঁকা ঘর পূরণ কর - ৪

সংখ্যা	কথায়	দশক ও একককে ভেঙে
২৩		
৩২		

৪। = , < বা > চিহ্ন সঠিক ঘরে বসাও :- ২

৭ ☐ ৪   ১৬ ☐ ১৬

১৩ ☐ ৩১   ১১ ☐ ৫